
THE BROWN RECLUSE SPIDER IN GEORGIA (ARANEIDA: LOXOSCELIDAE)¹

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ABSTRACT: The brown recluse spider, *Loxosceles reclusa*, was first reported from Georgia in 1968. Unaided dispersal of this species is apparently very slow, and man undoubtedly plays an important role in the movement of this pest. It is apparently much more common than previous collection records indicate, and is presently known from 12 counties. Egg sacs are first produced in June, and contain from 21-78 eggs each. The species overwinters as various instars or adults in Georgia. Good control was obtained using 0.02% Lindane spray.

DESCRIPTORS: *Loxosceles reclusa*, brown recluse spider, biology, control.

The brown recluse spider, *Loxosceles reclusa* Gertsch and Mulaik, has received much publicity in the last few years since Atkins, et al. (1958) proved that it was the species producing "necrotic arachnidism" in the United States. It was first collected in Georgia by Vazquez in 1961 under the loose bark of a white oak tree in Pike County. Large portions of this tree had been dead for several years. Since then, several other collections have been reported from the State, but these were always associated with man made structures. Gorham, et al. (1969) returned to the original collection site in 1968, and found the basal portion of the tree still standing, but the remainder had fallen to the ground. They found several males and females in various instars, all occupying the fallen portion of the trunk. They searched the surrounding area within a half mile radius but did not find other sites of infestation.

Because this is the only known collection in Georgia from a completely natural habitat, the author went to the collection site on June 3 and September 23, 1972 to determine if any dispersal had taken place from the rotten log. On June 3, six immature brown recluse spiders were found but no adults or early instar spiderlings were observed. On September 23, three adult males, 2 adult females, and 3 immature specimens were collected. Three of the adults were collected beneath the standing portion of the trunk. Gorham, et al. (1969) reported this portion of the tree harbored no spiders at the time of their collections.

A diligent search was conducted by the author in the area in a 200 yd. radius surrounding the log but none of the spiders could be found in any other location, although several places appeared

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to be ideal habitats for this species. The unaided dispersal of the brown recluse spider is apparently very slow, and man undoubtedly plays a major role in the movement of this pest from one locality to another.

In another locality, in Spalding Co., Ga., a heavy infestation was found in an old wooden frame shed about 100 yards from the owner's residence. Although 3 other unused buildings were located within 60 feet, no spiders were found in them, again indicating the poor dispersal ability of *L. reclusa*.

The Spalding Co. population was observed for over a year. Egg sacs were first observed on June 8, 1973, and numbered up to 3 per female. The number of eggs per sac ranged from 21-78 in 20 egg sacs observed. In summer months spiders of all stages were abundant on beams in the ceiling and along the exposed frame of the walls. Usually 3 or 4 cast skins were located near adult spiders, suggesting that the spider stakes out and occupies a very small territory when it reaches the 3rd or 4th instar, and stays within this area into adulthood. It appears that the spider may overwinter in almost any stage. Early instars through adults were collected as late as January 15, 1973, and again on June 8 before any new broods were seen. Adult females marked with red paint on January 15 were later collected with egg sacs on July 6. After mid-January, the spiders were very difficult to find. The colder temperatures apparently had forced them to seek refuge in cracks and crevices providing more protection.

On September 28, 1973, the Spalding Co. population was sprayed with 0.02% Lindane. There was 100% mortality on 20 caged specimens, and after 3 weeks, no live spiders were seen in the building.

Loxosceles reclusa is presently known from Butts, Cobb, Coweta, Douglas, Fulton, Gordon, Henry, Paulding, Pike, Spalding, Troup, and Walton Counties. It is probably more common in Georgia than previous collection records indicate, but because of its reclusive nature has gone unnoticed.

ACKNOWLEDGMENT

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REFERENCES CITED

- Atkins, J. A., C. W. Wingo, W. A. Sodeman, and J. E. Flynn. 1958. "Necrotic arachnidism". Amer. Jour. Trop. Med. and Hyg. 7:165-184.
- Gorham, R. J., J. Ross, and A. W. Vazquez. 1969. The brown recluse spider (*Loxosceles reclusa*) in a natural habitat in Georgia. Sanscript 3(1):7-9.